

Claims

1. A pliable two phase single wall heat transfer device for use in contacting and drawing heat away from a substance, said heat transfer device comprising
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- (a) a plurality of matrix units each including
- (i) an outer wall circumscribing and enclosing an inner space;
- (ii) a plurality of spaced apart hollow fluid tight containers connected to a portion of said wall, extending from said wall into said inner space;
- 10
- (iii) a first heat-exchange composition in said inner space contacting each of said fluid tight containers and comprising a liquid which undergoes a change of state from the liquid phase to the solid phase at a selected temperature of transformation; and,
- (iv) a second heat-exchange composition in each of said hollow
- 15
- containers comprising a liquid which undergoes a change of state from the liquid phase to the solid phase at a selected temperature of transformation;
- (b) a fastening system for interconnecting said matrix units along at least a pair of separate spaced apart lines of weakening to enable said heat
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- transfer device to be mounted over the shoulders and around the neck of an individual.
2. A pliable two phase single wall heat transfer device for use in contacting and drawing heat away from a substance, said heat transfer device comprising
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- (a) a plurality of matrix units each including
- (i) an outer wall circumscribing and enclosing an inner space;
- (ii) a plurality of spaced apart hollow fluid tight containers connected to

- a portion of said wall, extending from said wall into said inner space;
- (iii) a first heat-exchange composition in said inner space contacting each of said fluid tight containers and comprising a liquid which undergoes a change of state from the liquid phase to the solid phase at a selected temperature of transformation; and,
- (iv) a second heat-exchange composition in each of said hollow containers comprising a liquid which undergoes a change of state from the liquid phase to the solid phase at a selected temperature of transformation;
- (b) a fastening system for detachable interconnecting said matrix units in a plurality of different configurations along at least a pair of separate spaced apart lines of weakening to enable said heat transfer device to conform to different portions of an individual's body.
3. A method for drawing heat away from a substance, said method comprising the steps of
- (a) conducting heat from the substance through a first sheet into a first fluid reservoir;
- (b) moving heat by liquid convection in said reservoir;
- (c) conducting through a second sheet into a second fluid reservoir heat transported by liquid convection in said first fluid reservoir;
- (d) moving heat by liquid convection from said second fluid reservoir to said first fluid reservoir.